

## **MINNESOTA STATE REPORT**

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### **Wolf Management Plan Completion**

In 2022, MN DNR completed an update to the state's 20-year-old wolf management plan. Minnesota's wolf legacy is unique: the state's northeastern corner of lakes and forest once sheltered the last remaining wild wolves in the lower 48 states. Today, wolves are distributed across half the state in numbers (2,700) well above Endangered Species Act recovery plan goals (1,251-1,400) for the wolf in Minnesota. Wolf population growth in Minnesota has contributed significantly to the expansion of wolf range in other parts of the upper Great Lakes region. Tribal nations were integrally involved in the plan update, as were federal, state, and local governments; non-governmental organizations; other partners; and members of the public. Goals of the new plan include maintaining a well-connected and resilient wolf population; collaborating with diverse partners; minimizing and addressing human-wolf conflicts; engaging the public; conducting research; and administering the wolf program effectively.

### **Wildlife Management Area Planning**

Minnesota has eight "major unit" Wildlife Management Areas (WMAs), and over 1,500 WMAs overall, providing 1.37 million acres of habitat. MN DNR is undertaking an update of its major unit master plans, many of which are decades old. In 2022, the updated Whitewater WMA master plan was completed, guiding one of the largest remaining contiguous expanses of habitat in southeast Minnesota. Significant changes in this plan reflect a greater emphasis on restoring and enhancing native plant communities, changes in wildlife and public use of the area, new challenges like invasive species, changing user groups, changing climate, and new approaches to farming. Multiple additional major unit master plans will be completed in the coming years.

In 2023, MN DNR is kicking off a multi-year process to develop a comprehensive plan for the remainder of the state's WMAs, along with its 700 Aquatic Management Areas (AMAs). The project will rely heavily on public and partner engagement to define a systemwide vision and opportunities for the future.

### **Chronic Wasting Disease Update**

During fall 2022, the MN DNR conducted surveillance for chronic wasting disease (CWD) across 10 areas of the state. Hunters were required to have harvested deer sampled over opening weekend of firearm season to obtain enough data to have confidence in disease detection. Compliance with testing was very high, averaging 87% across all areas, and over 7,000 samples were collected. In combination with additional voluntary sampling options, hunters contributed a total of 12,751 samples during the fall season and 26 new detections of CWD occurred. The majority of CWD-positive deer were located in areas with persisting infection in southeast

Minnesota; however, a new focus of disease was detected in Hubbard County in the northwest. Due to discovering CWD in novel areas last year (Grand Rapids and Climax) that were not identified by our CWD Management and Response Plan as having elevated disease risk, MN DNR opted to offer expanded testing services statewide to hunters, at no cost. This included an expansion of the existing Partner Sampling Program, which is comprised primarily of licensed taxidermists compensated for providing samples from adult deer. A total of 157 vendors were recruited into the program, resulting in 3,205 total samples, including 5 CWD-positive deer. A pilot self-service mail-in kit project was also initiated, in which hunters could remove samples from their own deer and submit for testing at no cost to the hunter. A total of 5,000 kits were distributed, with 593 successful hunters submitting samples (11% error rate in tissue identification) and one new CWD positive detection. While MN DNR does continue to find CWD-infected deer, prevalence remains very low and management efforts focus on preventing disease spread to new areas of the state.

### **Electronic License System Update**

MN DNR and Minnesota IT Services (MNIT) recently announced the selection of the conservation technology company S3 to build a modern Electronic License System (ELS) for the state's anglers, boaters, hunters, recreational vehicle operators, and people who enroll in DNR safety trainings. MN DNR and MNIT staff have already begun working with S3 to plan and schedule the build; the system is expected to be rolled out to the public in early 2025.

This effort started in July 2021. A rigorous RFP requirement process was completed involving agency interviews and analysis, stakeholder surveys, and focus groups. Vendor evaluation included written proposals, agency demos, demos to external stakeholders, and an invitation to negotiate with several vendors, leading to a signed contract.

Expected outcomes are more online and mobile functionality to purchase and download licenses; a new events management system for skills and safety classes; a newly developed mobile Law Enforcement Application for Conservation Officers afield; integrating outside systems into ELS; and streamlined recreational vehicle business processes with deputy registrars.

### **Hiring, Return to the Workplace, and Telework**

The Division of Fish and Wildlife (FAW) is approaching a full complement of staff after hiring challenges and economic uncertainties during the COVID-19 pandemic. Since July 1, 2022, the division has hired 59 new staff, including eight managerial positions, out of 574 total staff. We have been fortunate to see many qualified candidates for most of our vacancies. The agency is adapting to the realities of telework and evaluating physical space/office requirements in the coming year. Many staff are teleworking at least part time when business needs can be met remotely. Staff are striving to maximize the value of in-person office days. A review of FAW staff in MN DNR Central Office and regional offices found an average occupancy rate of 19 to 34%. This does not include locations where field work is ongoing and in-person attendance is closer to 100%.

### **100<sup>th</sup> Minnesota Outdoor Skills and Stewardship Episode**

During the COVID-19 pandemic, MN DNR Fish and Wildlife Outreach expanded its online programming to include a weekly webinar series, [Minnesota Outdoor Skills and](#)

[Stewardship Series \(MOSSS\)](#). The programs introduce people to hunting, angling, shooting sports and other outdoor recreation topics and skills, and we recently completed our 100th episode. Hosted by FAW Outreach staff, DNR staff and outside experts present the information as a conversation with the audience, take written questions, and provide live answers to questions received. The webinars have reached several thousand individuals and have seen tremendous growth in participation throughout the past couple of years. Over the last couple of months, we have averaged over 500 registrants each week with an average of 200 viewers live for each episode. All webinars are live-captioned, recorded and made available on our [website](#). A high percentage of those who have been unable to make the programs live have accessed the recordings.

We are finding that mixing DNR research and staff expertise on fish and wildlife biology management with fishing, hunting, and outdoor recreation tips and techniques has been very popular. We particularly highlight what anglers and hunters can learn from that research and knowledge to improve their outdoor skills.

### **Conservation Partners Legacy Update**

The MN DNR administers the Conservation Partners Legacy (CPL) small grants program which is funded by the state's Outdoor Heritage Fund. The CPL program awards competitive and non-competitive grants of \$5,000-\$500,000 to conservation groups, non-governmental organizations (NGOs), and local governments for habitat projects. To date, nearly \$100 million has been appropriated to CPL, with \$9.5 million slated for 2023. This program has improved or protected over 575,000 acres of habitat with 950 grants, leveraging more than \$18 million in non-state funding from more than 270 conservation clubs and government entities in Minnesota.

### **Sturgeon Spawning in Red River Basin**

Since 1997, the MN DNR and a diverse group of partners have worked to restore Lake Sturgeon to the Red River of the North system. Partnerships with USFWS and tribal resource agencies have been critical for the egg collection, intensive culture, and restocking programs. Concurrently, the Red River system's connectivity has been aggressively restored through the "Reconnect the Red" initiative. Of the 69 targeted fish passage barriers in the watershed, 48 will have been removed or modified for passage by the end of the 2023 construction season, including all eight mainstem dams. In the spring of 2022, Lake Sturgeon spawning was verified in a Red River tributary, which was the first natural reproduction attempt in over 100 years. This important milestone is another step toward the Red River's Lake Sturgeon reestablishment and recovery; additional restoration and connectivity work remains ongoing.

### **Limit on Gar**

Gar harvest is very popular among segments of the bowfishing and spearing community. Bowfishing tournaments that take high numbers of gar, as well as a spearfishing episode in which more than 80 gar were harvested through the ice elevated concerns about the sustainable harvest of gar in Minnesota. As a result, the Minnesota legislature mandated the MN DNR to establish a daily and possession limit on gar. Given that gar population data are extremely limited, the department focused on establishing the most socially palatable gar limit. An extensive outreach effort was conducted to bowfishing and spearing participants, sportfishing clubs, and tribes. A public questionnaire was also distributed via social media and resulted in 1,232 responses and 59 comments. Informed by the range of input received, the department proposed and implemented a

daily and possession limit of 10 gar (shortnose and longnose gar in aggregate). This limit went into effect March 1, 2023, and will be reviewed annually until it can be established as a permanent rule.

### **Building Climate Change Resiliency in Brook Trout Populations**

Along the North Shore of Lake Superior, over 34% of Brook Trout thermal habitat is predicted to disappear by the year 2060. In response, the MN DNR has identified several watersheds that are believed to be most resilient to temperature changes. In these watersheds, priorities have focused on identifying key cold water inputs and refuges, planting riparian vegetation with climate resilient long-lived tree species, and improving connectivity within the watershed specifically to allow Brook Trout access cold-water thermal refuges during low and warm water. To facilitate the connectivity, a prioritization matrix was developed to replace undersized culverts in these watersheds. Replacing undersized culverts is helping these priority watersheds deal with changing hydrology, improving genetic diversity, and allowing Brook Trout to migrate to thermal refuges throughout the year. Recently, 11 undersized culverts were replaced through cooperative partnerships which include local Soil and Water Conservation Districts, U.S. Forest Service, U.S. Fish and Wildlife Service, Minnesota Pollution Control Agency, and Trout Unlimited. Seven culverts are planned to be replaced with larger culverts or bridges in next few years.

### **Brown Trout in Southeast Minnesota**

Southeast Minnesota has more than 150 designated trout streams totaling 720 stream miles. Long-term monitoring data has shown a 400% increase in Brown Trout adult abundance over the last 50 years, creating some of the best trout angling opportunities in Minnesota in over a century. The improvements are due to increased precipitation, better land use practices, and in-stream habitat improvement. While increased precipitation can lead to flooding, it is also beneficial to recharge groundwater and increase spring flow, which is crucial for trout. MN DNR is proposing to add additional miles of designated trout streams in the region, a reflection of improved baseflow in many streams.

Minnesota has also faced challenges with recurring agriculture-related fish kills involving hundreds to thousands of trout and other species following larger rain events in southeast trout streams. Although trout populations recover within a few years, these kills highlight that further improvements to agricultural practices are needed.

DNR, along with partners like Trout Unlimited, enhances three to four miles of stream annually in part through funding from Minnesota's Clean Water Land and Legacy Amendment. In recent years, five miles of DNR angling easements have been added to the 255 miles of easements that allow access for anglers and stream management.

### **Population Estimates of Predator Species**

Muskellunge, walleye, northern pike, and largemouth bass are top predator fish in many Minnesota lakes. What and how much those predators eat, and how their diets compare, is the focus of an ongoing fisheries research project, currently in its final year.

Population size often determines the amount of food a population consumes. We have seen a consistent trend in our study lakes in which largemouth bass were the most abundant, followed by northern pike, walleye, and muskellunge. Therefore, muskellunge populations ate the least amount of food compared to the other predators. They also consumed different prey resources such as white sucker, northern pike, and bullheads. While not consistent in every lake, walleye and northern pike appear to have the highest amount of diet overlap, with yellow perch and sunfish being favored prey in many lakes. Lastly, largemouth bass prefer to eat crayfish and other invertebrates in most lakes when they are available, but sunfish were also important in some lakes.

### **Development of Coldwater and Exceptional Water Standards**

MN DNR Fisheries and Minnesota Pollution Control Agency scientists have developed and proposed new water quality standards to protect exceptional fish communities and cold-water fish communities and their respective habitats. Scientists developed models for fish assemblages in Minnesota lakes to define changes to the fish communities along a gradient of increasing anthropogenic stressors such as shoreline disturbance and watershed disturbance and associated nutrient loading. New biological standards with stricter impairment thresholds are proposed to recognize and protect exceptional lakes with diverse and unique fish communities. Lakes identified as containing exceptional fish communities are in predominantly forested watersheds, with higher aquatic plant species richness, lower phosphorus levels, and higher quality shorelines. Protecting exceptional use lakes is more cost effective than restoration once they have been degraded. New proposed water chemistry standards add protection for other cold water fish species such as Cisco and Lake Whitefish and strengthen Minnesota's water quality standards for lakes which support or are managed for trout. Many populations of cold water fish species in Minnesota are threatened by a warming climate and eutrophication because these species require cool, oxygenated water. The proposed temperature, oxygen, and water chemistry standards can be used to maintain populations of these vulnerable fish species and to protect or restore these important aquatic resources.